

Application No.: 09/982307

Docket No. 10003714-1

AGIL-27470

AMENDMENTS TO THE CLAIMS

1 1-20. (previously canceled)

1 21. (currently amended) A companion body fluid analyzing cartridge comprising:

2 a body having a top side and a bottom side;

3 a base element, on said bottom side of said body, detachably connected to a
4 side of an associated sensing cartridge body that performs an analyzing operation on a body
5 fluid, and has a liquid volume capacity of ~~less than about~~ between 20 and 50 micro-liters;

6 a port, on the base element, aligned with a second port on the companion body
7 fluid analyzing cartridge body;

8 a first tube connected to said port;

9 a fluid reservoir having a liquid volume capacity of between 50 and 500
10 micro-liters ~~at least twice the liquid volume capacity of said associated sensing cartridge,~~
11 connected to said first tube, said fluid reservoir containing a fluid that is to be provided to
12 said associated sensing cartridge body via said first tube, said fluid reservoir being reused as a
13 waste reservoir and being directly connected to a second tube that receives waste fluid
14 directly from said sensing cartridge body after said fluid is provided to said sensing cartridge
15 body via said first tube.

1 22. (previously submitted) The companion body fluid analyzing cartridge
2 according to claim 21, wherein the companion cartridge detachably connects with said
3 associated sensing cartridge body by at least one of a fluid interface, a mechanical interface,
4 and an electrical interface.

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1 23. (previously submitted) The companion body fluid analyzing cartridge of
2 claim 21, further comprising a reagent storage system comprising said fluid reservoir.

1 24. (previously submitted) The companion body fluid analyzing cartridge of
2 claim 21, further comprising a calibration fluid system comprising said fluid reservoir.

1 25. (previously submitted) The companion body fluid analyzing cartridge of
2 claim 24, further comprising a waste retrieval system connected to the calibration fluid
3 system.

1 26. (previously submitted) The companion body fluid analyzing cartridge of
2 claim 21, further comprising an assay element preparation system comprising said fluid
3 reservoir.

1 27. (previously submitted) The companion body fluid analyzing cartridge of
2 claim 26, wherein the assay element preparation system includes one or more processes
3 selected from the group consisting of a blood chemistry process, a hematology process, an
4 immuno-diagnostics process, and a DNA testing process.

1 28. (previously submitted) The companion body fluid analyzing cartridge of
2 claim 26, wherein the assay element preparation system includes one ore more operations
3 selected from the group consisting of a thermo cycling operation, an incubation operation,
4 and an isolation operation.

1 29. (previously submitted) The companion body fluid analyzing cartridge of
2 claim 21, wherein the associated companion cartridge body comprises a carrier fluid system
3 connected to said first port.

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1 30. (previously submitted) The companion body fluid analyzing cartridge of
2 claim 29, wherein the carrier fluid system is programmed to increase at least a portion of the
3 volume of an assay element.

1 31. (previously submitted) The companion body fluid analyzing cartridge of
2 claim 29, wherein the carrier fluid system is connected to a waste retrieval system.

1 32. (previously submitted) The companion body fluid analyzing cartridge of
2 claim 29, further comprising an assay element, wherein the carrier fluid remains essentially
3 unmixed with the assay element.

1 33. (previously submitted) The companion body fluid analyzing cartridge of
2 claim 29, further comprising an assay element preparation system, wherein the carrier fluid
3 remains essentially unmixed with the assay element.

1 34. (currently amended) An analytical instrument comprising:
2 a companion body fluid analyzing cartridge body comprising a reagent
3 storage system connected to a first tube and a waste retrieval system connected to a second
4 tube, both said reagent storage system and said waste retrieval system comprising a same
5 reusable fluid reservoir, said same reusable fluid reservoir being directly connected to said
6 first tube for providing a reagent to said reagent storage system and being directly connected
7 to said second tube for receiving waste fluid from said waste retrieval system, and
8 a sensor cartridge detachably connected to and receives said reagent
9 from said reagent storage system of said companion body fluid analyzing cartridge body, and
10 providing waste fluid to the waste retrieval system on said companion body fluid analyzing
11 cartridge body after said reagent is received by said sensor cartridge, wherein the sensor

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12 cartridge provides chemical analysis of an assay element, said sensor cartridge having a
13 liquid volume capacity of ~~less than about~~ between 20 and 50 micro-liters;

14 said companion body fluid analyzing cartridge body having a liquid
15 volume capacity of between 50 and 500 micro-liters ~~at least twice the liquid volume capacity~~
16 ~~of said sensor cartridge.~~

1 35. (currently amended) An analytical instrument comprising:
2 a companion body fluid analyzing cartridge body comprising a
3 calibration fluid system directly connected to a first tube and a waste retrieval system directly
4 connected to a second tube, both said calibration system and said waste retrieval system
5 comprising a same reusable fluid reservoir, said same reusable fluid reservoir being directly
6 connected to said first tube that provides a fluid to said calibration system and being directly
7 connected to said second tube that receives waste fluid from said waste retrieval system, and
8 a sensor cartridge detachably connected to and receiving said
9 calibration fluid from said calibration system on said companion body fluid analyzing
10 cartridge, and providing waste fluid to the waste retrieval system on said companion body
11 fluid analyzing cartridge body after said calibration fluid is received by said sensor cartridge,
12 wherein the sensor cartridge provides chemical analysis of an assay element, said sensor
13 cartridge having a liquid volume capacity of ~~less than about~~ between 20 and 50 micro-liters;
14 said companion body fluid analyzing cartridge body having a liquid
15 volume capacity of between 50 and 500 micro-liters ~~at least twice the liquid volume capacity~~
16 ~~of said sensor cartridge.~~

1 36. (currently amended) An analytical instrument comprising:

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2 a companion body fluid analyzing cartridge body comprising an assay
3 element preparation system connected to a first tube and a waste retrieval system connected
4 to a second tube, both said assay element preparation system and said waste retrieval system
5 comprising a same multiuse fluid reservoir, said same multiuse fluid reservoir directly
6 connected to said first tube for providing a fluid to said assay element preparation system and
7 directly connected to said second tube for receiving a waste fluid from said waste retrieval
8 system, and

9 a sensor cartridge detachably connected to and receiving said fluid
10 from said same multiuse fluid reservoir via said first tube of said companion body fluid
11 analyzing cartridge body, and then providing waste fluid to said second tube of said
12 companion body fluid analyzing cartridge body, said waste fluid being deposited in said same
13 multiuse fluid reservoir, said sensor cartridge having a liquid volume capacity of ~~less than~~
14 about between 20 and 50 micro-liters; said companion body fluid analyzing cartridge body
15 having a liquid volume capacity of between 50 and 500 micro-liters ~~at least twice the liquid~~
16 ~~volume capacity of said sensor cartridge.~~

1 37. (currently amended) An analytical instrument comprising:

2 a companion body fluid analyzing cartridge body comprising a carrier
3 fluid system comprising a first fluid tube and a waste retrieval system comprising a second
4 fluid tube, both said carrier fluid system and said waste retrieval system comprising a same
5 fluid reservoir, said same fluid reservoir directly connected to said first fluid tube and said
6 second fluid tube and comprising a carrier fluid, and

7 a sensor cartridge detachably connected to and receiving said carrier
8 fluid from said first fluid tube, and then providing a waste fluid to said second fluid tube, said

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9 waste fluid being deposited into said same fluid reservoir, and wherein the sensor cartridge
10 provides chemical analysis of an assay element, said sensor cartridge having a liquid volume
11 capacity of ~~less than about~~ between 20 and 50 micro-liters; said companion body fluid
12 analyzing cartridge body having a liquid volume capacity of between 50 and 500 micro-liters.
13 ~~at least twice the liquid volume capacity of said sensor cartridge.~~

14

1 38.-43. (previously canceled)